## **AMENDMENT**

1. (Amended) Anthraquinone dye compounds having formula II. or formula VI.:

$$VI. \begin{array}{c} R_s\text{-S} & O & \text{NH-L}_1\text{-Z-Q} \\ \\ Q\text{-Z-L}_1\text{-NH} & O & S\text{-R}_s \end{array}$$

wherein:

R is hydrogen or 1-3 groups selected from  $C_1$  -  $C_6$ -alkyl,  $C_1$  -  $C_6$ -alkoxy and halogen;  $R_1$  is  $C_1$  -  $C_6$ -alkyl, substituted  $C_1$  -  $C_6$ -alkyl,  $C_3$  -  $C_8$ -alkenyl,

 $C_3$  -  $C_8$ -cycloalkyl, aryl or - $L_1$ -Z-Q;

 $R_2$  is hydrogen,  $C_4$ — $C_6$ -alkyl, substituted  $C_4$ — $C_6$ -alkyl,  $C_3$ — $C_8$ -cycloalkyl or aryl;  $R_5$  is  $C_1$ - $C_6$ -alkyl, substituted  $C_1$ - $C_6$  alkyl,  $C_3$ - $C_8$ -cycloalkyl, aryl, heteroaryl, - $L_1$ -Z-Q,

$$\begin{array}{c|c}
R & N-N+L-Z+Q \\
\hline
X_2CH_2-C(R_8)=CH_2, -C', N', C \\
\hline
R_2 & Or
\end{array}$$
or

R<sub>8</sub> is hydrogen or C<sub>1</sub>. C<sub>6</sub> alkyl;

X is a covalent bond or a divalent linking group selected from -O-, -S-, -SO<sub>2</sub>-, - $\frac{CO_2}{T}$ -, and -CON(Y)- and -SO<sub>2</sub>N(Y)-, wherein Y is hydrogen, C<sub>1</sub>- C<sub>6</sub>-alkyl, substituted C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>3</sub>-C<sub>8</sub>-alkenyl aryl or -L-Z- Q;

 $X_2$  is selected from  $CO_2$ —and  $SO_2N(Y_1)$ , wherein  $Y_1$  is hydrogen,  $C_1$ - $C_6$ -alkyl, substituted  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_8$ -alkenyl,  $C_3$ - $C_8$ -cycloalkyl, aryl, heteroaryl or  $-CH_2$ -p- $C_6H_4$ - $-C(R_8)$ - $-CH_2$ ;

L is a divalent linking group selected from  $C_1$ - $C_8$ -alkylene,  $C_1$ - $C_6$ -alkylene-arylene, arylene,  $C_1$ - $C_6$ -alkylene-arylene - $C_1$ - $C_6$ -alkylene,  $C_3$ - $C_8$ -cycloalkylene,  $C_1$ - $C_6$ -alkylene - $C_3$ - $C_8$ -cycloalkylene - $C_1$ - $C_6$ -alkylene,  $C_1$ - $C_6$ -alkylene - $C_1$ - $C_6$ -alkylene - $C_1$ - $C_6$ -alkylene and  $C_2$ - $C_6$ -alkylene- $C_1$ - $C_6$ -alkylene- $C_1$ - $C_6$ -alkylene and  $C_2$ - $C_6$ -alkylene- $C_1$ - $C_6$ -alky

 $L_1$  is a divalent linking group selected from  $C_2$  -  $C_6$ -alkylene,  $C_1$ - $C_6$ -alkylene- $C_3$ - $C_8$ -cycloalkylene- $C_1$ - $C_6$ -alkylene,  $C_1$ - $C_6$ -alkylene-arylene,  $C_3$ - $C_8$ -cycloalkylene, and  $C_2$ - $C_6$ -alkylene- $[-Z_1$ - $C_2$ - $C_6$ -alkylene- $]_n$ -, wherein  $Z_1$  is -O-, -S- or -SO<sub>2</sub>- and n is 1-3;

Z is a divalent group selected from -O-, -S-, -NH-, -N( $C_1$ - $C_6$ -alkyl)-, -N( $C_3$ - $C_8$  alkenyl)-, -N( $C_3$ - $C_8$  cycloalkyl)-, -N( $SO_2C_1$ - $C_6$ -alkyl) and -N( $SO_2$  aryl)-, provided that when Q is a photopolymerizable optionally substituted maleimide radical, Z represents a covalent bond;

Q is an ethylenically-unsaturated, photosensitive polymerizable group; and m is 0 or 1.

2. (Currently amended) Anthraquinone compounds according to Claim 1 wherein the ethylenically-unsaturated, photosensitive copolymerizable groups represented by Q are selected from the following organic radicals:

Ia 
$$-COC(R_{11})=CH-R_{12}$$

IIa 
$$-CONH-COC(R_{11})=CH-R_{12}$$

IIIa -CONH-
$$C_1$$
 -  $C_6$ -alkylene OCOC( $R_{11}$ ) -CH=CH- $R_{12}$ 

IVa
$$\begin{array}{c}
R_{13} \\
-\text{CO-C-NHCOC}(R_{11}) = \text{CH-R}_{12} \\
R_{14}
\end{array}$$

VIIa 
$$-CH_2$$
  $-C(R_{11})=CH_2$ 

VIIIa -CONH 
$$C$$
 -C(R<sub>11</sub>)=CH<sub>2</sub>

IXa 
$$-SO_2C(R_{11})=CH_2$$

$$\overset{\text{CH}_2}{\underset{\text{III}}{\text{III}}}$$
  $\overset{\text{CH}_2}{\underset{\text{COCH}_2\text{CO}_2\text{R}_{15}}{\text{COCH}_2\text{CO}_2\text{R}_{15}}}$  or  $\overset{\text{CH}_2}{\underset{\text{COCCH}_2\text{CO}_2\text{R}_{15}}{\text{COCH}_2\text{CO}_2\text{R}_{15}}}$ 

wherein:

R<sub>11</sub> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl;

 $R_{12}$  is hydrogen;  $C_1$ - $C_6$ -alkyl; phenyl or phenyl substituted with one or more groups selected from  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -alkoxy, -N( $C_1$ - $C_6$ -alkyl), nitro, cyano,  $C_1$ - $C_6$ -alkoxycarbonyl,  $C_1$ - $C_6$ -alkanoyloxy and halogen; 1- or 2-naphthyl which may be substituted with  $C_1$ - $C_6$ -alkyl or  $C_1$ - $C_6$ -alkoxy; 2- or 3-thienyl which may be substituted with  $C_1$ - $C_6$ -alkyl;

 $R_{13}$  and  $R_{14}$  are hydrogen,  $C_1$ - $C_6$ -alkyl, substituted  $C_1$ - $C_6$ -alkyl, aryl or may be combined to represent a  $-[-CH_2-]_{3-5}$ - radical;

 $R_{15} \ is \ hydrogen, \ C_1\text{-}C_6\text{-}alkyl, \ substituted} \ C_1\text{-}C_6\text{-}alkyl, \ C_3\text{-}C_8\text{-}alkenyl, \ C_3\text{-}C_8\text{-}cycloalkyl} \ or \ aryl; \ \underline{and}$ 

 $R_{16}$  is hydrogen,  $C_1$  -  $C_6$ -alkyl or aryl.

- 3. (Previously canceled)
- 4. (Original) Anthraquinone compounds according to Claim 2 having the formula:

wherein Z is -O-.

Claims 5 - 7 (Previously canceled)

8. (Original) Anthraquinone compounds according to Claim 2 having the formula:

wherein Z is -O-.

Claims 9 – 18 (Previously canceled)

- 19. (Original) Anthraquinone compounds according to Claim 2 wherein Q is organic radical la.
- 20. (Original) Anthraquinone compounds according to Claim 2 wherein Q is organic radical la wherein  $R_{11}$  is hydrogen or methyl and  $R_{12}$  is hydrogen.
- 21. (Original) Anthraquinone compounds according to Claim 2 wherein Q is organic radical VIIa.

22. (Original) Anthraquinone compounds according to Claim 2 wherein Q is organic radical VIIa wherein R<sub>11</sub> is hydrogen.

- 23. (Original) Anthraquinone compounds according to Claim 2 wherein Q is organic radical VIIIa.
- 24. (Original) Anthraquinone compounds according to Claim 2 wherein Q is organic radical VIIIa wherein  $R_{11}$  is hydrogen or methyl and  $R_{13}$  and  $R_{14}$  are methyl.

Claims 25 and 26 (Previously canceled)

27. (Original) Anthraquinone compounds according to Claim 8 wherein  $L_1$  is  $-CH_2C(CH_3)_2CH_2$ - and  $R_5$  is aryl.

Claims 28 - 46 (Canceled)

- 47. (Original) A coating composition comprising (i) one or more polymerizable vinyl compounds, (ii) one or more of the dye compounds of Claim 1, and (iii) a photoinitiator.
- 48. (Previously amended) A coating composition comprising (i) one or more polymerizable vinyl compounds, (ii) one or more of the dye compounds of Claim 2 present in a concentration of about 0.05 to 15 weight percent based on the weight of component (i), and (iii) a photoinitiator present in a concentration of about 1 to 15 weight percent based on the weight of the polymerizable vinyl compound(s) present in the coating composition.
- 49. (Original) A coating composition according to Claim 48 wherein the polymerizable vinyl compounds comprise a solution of a polymeric, polymerizable vinyl compound selected from acrylated and methacrylated polyesters, acrylated and methacrylated epoxy polymers, acrylated or

methacrylated urethanes, and mixtures thereof, in a diluent selected from monomeric acrylate and methacrylate esters.

- 50. (Previously amended) A polymeric coating composition comprising a polymer of one or more acrylic acid esters, one or more methacrylic acid esters or other copolymerizable vinyl compounds, having copolymerized therein one or more of the dye compounds defined in Claim 1.
- 51. (Previously amended) A polymeric coating composition comprising a coating of an acrylic polymer of one or more acrylic acid esters, one or more methacrylic acid esters or a mixture thereof having copolymerized therein one or more of the dye compounds defined in Claim 2.
- 52. (Previously amended) A polymeric coating composition comprising a coating of an unsaturated polyester containing one or more maleate/fumarate residues; one or more monomers which contain one or more vinyl ether groups, one or more vinyl ester groups, or a combination thereof, and, optionally, one or more acrylic or methacrylic acid esters; or a mixture thereof having copolymerized therein one or more of the dye compounds defined in Claim 2.
- 53. (Previously amended) A polymeric coating according to Claim 51 containing from about 0.05 to 15.0 weight percent of the residue of one or more of the dye compounds based on the weight of the coating.